

AVIATION

The Oldest American Aeronautical Magazine

FEBRUARY 8, 1926

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VOLUME
XX

SPECIAL FEATURES

NUMBER
6

AMERICAN AIR ACES
NIGHT FLYING EXPERIMENTS
COLONEL MITCHELL RESIGNS

GARDNER PUBLISHING CO., Inc.
HIGHLAND, N. Y.
225 FOURTH AVENUE, NEW YORK

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FEBRUARY 5, 1926

AVIATION

VOL. XX, NO. 6

Published every Monday

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We will show \$119,000 worth of airplanes, parts and accessories and still have a large number for sale. We believe the prices on airplanes are the lowest in the country and a small fortune in saving money. We have a large stock of airplanes, parts and accessories, and a small fortune in saving money. We have a large stock of airplanes, parts and accessories, and a small fortune in saving money. We have a large stock of airplanes, parts and accessories, and a small fortune in saving money.

NEW STANDARD 21 AIRPLANE with guaranteed mechanical inspection, motor, 120 HP, \$119.00
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These airplanes are ready to fly and are in excellent condition. They are in excellent condition and are ready to fly. They are in excellent condition and are ready to fly. They are in excellent condition and are ready to fly. They are in excellent condition and are ready to fly.

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We will provide to teach a student to fly and successfully operate an airplane by himself, regardless of the number of years since he was in school. We will provide to teach a student to fly and successfully operate an airplane by himself, regardless of the number of years since he was in school. We will provide to teach a student to fly and successfully operate an airplane by himself, regardless of the number of years since he was in school. We will provide to teach a student to fly and successfully operate an airplane by himself, regardless of the number of years since he was in school.

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AVIATION

VOL. XX

FEBRUARY 6, 1926

No. 6

General Mitchell—Civilian

THIS EXPERIENCE has happened. General Mitchell has sacrificed his Army career for his belief in air supremacy and is now prepared to open a campaign of education that will have an important influence on our National Defense. The action of President Coolidge, as well as the War Department, in modifying the court martial verdict and, later, in accepting General Mitchell's resignation, is in line with what was to have been expected. However, since, on paper, whether or not the present experience is another of the moment and unexpected special case claims for recognition. The experience, the destroyer and the torpedo have had their days in court. The Army and Navy have shown in the same relative position to the battlefield and the industry. That the next war will prove General Mitchell's case in the belief of every citizen out of the service.

Those who are of the opinion that the career of General Mitchell, as a military leader, is nearing its end, so far as its influence with the public is concerned, are probably mistaken as they have always been. While it may have appeared that the air champion has slipped great freedom of speech, it should be remembered that he always knew that every word that he spoke was to be questioned by his enemies in the Army. Now, the public will have the last word to say.

The Present Helium Situation

APART from a certain, though limited, commercial value, helium is of tremendous value to the defense standpoint in the nation, and that fact alone would indicate the need for the closest attention being given the production and conservation of this product. Helium gas is a unique natural resource upon which this country possesses a virtual monopoly. Nevertheless, the supply of helium is being wasted at a terrific rate.

Beside the fact that the Secretary of the Interior has full authority to require for the Government, by purchase, lands which are rich in the gas, in order that a national reserve may be created, the Department is powerless to carry out its duties in this respect, owing to the fact that Congress has not made appropriation for this.

Meanwhile, it is estimated on good authority that approximately 600,000,000 cubic feet of the valuable gas are going to waste every year. Apart from the economy of the waste itself, such waste the diffusion of saving the necessary lead operations are increasing, owing to the spreading of industrial interests in other spheres over helium-bearing lands.

The military value of helium gas cannot, at the moment, be stated definitely, with the real sphere of the large surplus is defense in actual. But, the usefulness of the captive observation balloons in warfare has not been disputed and the use of non-inflammable helium gas for captive balloons is important from the safety standpoint of the occupants of the balloon basket.

From the commercial standpoint, too, the real value of helium gas is entirely dependent upon the sphere of usefulness of the balloon in commerce, but, if lighter-than-air aircraft are to be used at all in either military or commercial spheres, the importance of helium is paramount.

The United States possesses the only large supplies of this gas in the world. It is a gas of great economic value, which it is, of course, surprising to find that Canada has a certain potentiality in this respect. There is no small gas supply in Ontario and one in Alberta, while a new supply has recently been located in Ingersoll, Point Carleton, near Toronto. But, generally speaking, helium production is almost exclusively confined to the United States and it would seem that the only logical step to be taken is in the direction of increasing this valuable supply. The question is of immediate importance, and calls for immediate action.

Regulation Versus Insurance

WHICH situation is desired toward European civil aviation regulations is an example of what our air regulations may mean to progress in this field, it becomes increasingly noticeable how insurance, with the aims and objects of pure business and convenience as a background, has, in fact, separated itself from the center.

As a safeguard of the public and as an inducement always existing pressure for more design, construction and piloting, and against their opposition, aircraft insurance is, in this respect, a far more important factor in British civil aviation than the government regulations are. It is, in fact, very probable that, with government regulations reduced to a minimum, ordinary common sense and the pressure of insurance would pressure for and commercial aviation the best interests for all concerned.

As a striking example of this, it is most significant to observe that in Great Britain the aviation insurance group is, in fact, far in advance of government regulations in the direction of driving toward safety in operation. For instance, better insurance rates are quoted for machines embodying certain features which are in no sense directly encouraged by the government. While the government regulations have proved powerful in encouraging such safety and reliability measures as are obtained through the adaptation of the three-engine airplane, for instance, insurance rates are actually considerably lower for machines with three or more engines than for single-engine types. Insurance will be one of the heaviest charges on commercial air transportation, as it has always been on all other forms of transportation, and anything which reduces this charge will not only be to the good of the operators from the financial standpoint but will indirectly indicate increased safety of the service. This will, consequently, have the effect which government regulation is supposed to have, but without the accompanying drawbacks and disadvantages.

Last		Last		Last		Last	
Name	Rank	Score	Place	Name	Rank	Score	Place
McIntosh, Charles W.	2d Lieut.	1000	1	McIntosh, Charles W.	2d Lieut.	1000	1
McIntosh, Harry G.	1st Lieut.	980	2	McIntosh, Harry G.	1st Lieut.	980	2
McIntosh, Harry G.	2d Lieut.	960	3	McIntosh, Harry G.	2d Lieut.	960	3
McIntosh, Harry G.	3d Lieut.	940	4	McIntosh, Harry G.	3d Lieut.	940	4
McIntosh, Harry G.	4th Lieut.	920	5	McIntosh, Harry G.	4th Lieut.	920	5
McIntosh, Harry G.	5th Lieut.	900	6	McIntosh, Harry G.	5th Lieut.	900	6
McIntosh, Harry G.	6th Lieut.	880	7	McIntosh, Harry G.	6th Lieut.	880	7
McIntosh, Harry G.	7th Lieut.	860	8	McIntosh, Harry G.	7th Lieut.	860	8
McIntosh, Harry G.	8th Lieut.	840	9	McIntosh, Harry G.	8th Lieut.	840	9
McIntosh, Harry G.	9th Lieut.	820	10	McIntosh, Harry G.	9th Lieut.	820	10
McIntosh, Harry G.	10th Lieut.	800	11	McIntosh, Harry G.	10th Lieut.	800	11
McIntosh, Harry G.	11th Lieut.	780	12	McIntosh, Harry G.	11th Lieut.	780	12
McIntosh, Harry G.	12th Lieut.	760	13	McIntosh, Harry G.	12th Lieut.	760	13
McIntosh, Harry G.	13th Lieut.	740	14	McIntosh, Harry G.	13th Lieut.	740	14
McIntosh, Harry G.	14th Lieut.	720	15	McIntosh, Harry G.	14th Lieut.	720	15
McIntosh, Harry G.	15th Lieut.	700	16	McIntosh, Harry G.	15th Lieut.	700	16
McIntosh, Harry G.	16th Lieut.	680	17	McIntosh, Harry G.	16th Lieut.	680	17
McIntosh, Harry G.	17th Lieut.	660	18	McIntosh, Harry G.	17th Lieut.	660	18
McIntosh, Harry G.	18th Lieut.	640	19	McIntosh, Harry G.	18th Lieut.	640	19
McIntosh, Harry G.	19th Lieut.	620	20	McIntosh, Harry G.	19th Lieut.	620	20
McIntosh, Harry G.	20th Lieut.	600	21	McIntosh, Harry G.	20th Lieut.	600	21
McIntosh, Harry G.	21st Lieut.	580	22	McIntosh, Harry G.	21st Lieut.	580	22
McIntosh, Harry G.	22nd Lieut.	560	23	McIntosh, Harry G.	22nd Lieut.	560	23
McIntosh, Harry G.	23rd Lieut.	540	24	McIntosh, Harry G.	23rd Lieut.	540	24
McIntosh, Harry G.	24th Lieut.	520	25	McIntosh, Harry G.	24th Lieut.	520	25
McIntosh, Harry G.	25th Lieut.	500	26	McIntosh, Harry G.	25th Lieut.	500	26
McIntosh, Harry G.	26th Lieut.	480	27	McIntosh, Harry G.	26th Lieut.	480	27
McIntosh, Harry G.	27th Lieut.	460	28	McIntosh, Harry G.	27th Lieut.	460	28
McIntosh, Harry G.	28th Lieut.	440	29	McIntosh, Harry G.	28th Lieut.	440	29
McIntosh, Harry G.	29th Lieut.	420	30	McIntosh, Harry G.	29th Lieut.	420	30
McIntosh, Harry G.	30th Lieut.	400	31	McIntosh, Harry G.	30th Lieut.	400	31
McIntosh, Harry G.	31st Lieut.	380	32	McIntosh, Harry G.	31st Lieut.	380	32
McIntosh, Harry G.	32nd Lieut.	360	33	McIntosh, Harry G.	32nd Lieut.	360	33
McIntosh, Harry G.	33rd Lieut.	340	34	McIntosh, Harry G.	33rd Lieut.	340	34
McIntosh, Harry G.	34th Lieut.	320	35	McIntosh, Harry G.	34th Lieut.	320	35
McIntosh, Harry G.	35th Lieut.	300	36	McIntosh, Harry G.	35th Lieut.	300	36
McIntosh, Harry G.	36th Lieut.	280	37	McIntosh, Harry G.	36th Lieut.	280	37
McIntosh, Harry G.	37th Lieut.	260	38	McIntosh, Harry G.	37th Lieut.	260	38
McIntosh, Harry G.	38th Lieut.	240	39	McIntosh, Harry G.	38th Lieut.	240	39
McIntosh, Harry G.	39th Lieut.	220	40	McIntosh, Harry G.	39th Lieut.	220	40
McIntosh, Harry G.	40th Lieut.	200	41	McIntosh, Harry G.	40th Lieut.	200	41
McIntosh, Harry G.	41st Lieut.	180	42	McIntosh, Harry G.	41st Lieut.	180	42
McIntosh, Harry G.	42nd Lieut.	160	43	McIntosh, Harry G.	42nd Lieut.	160	43
McIntosh, Harry G.	43rd Lieut.	140	44	McIntosh, Harry G.	43rd Lieut.	140	44
McIntosh, Harry G.	44th Lieut.	120	45	McIntosh, Harry G.	44th Lieut.	120	45
McIntosh, Harry G.	45th Lieut.	100	46	McIntosh, Harry G.	45th Lieut.	100	46
McIntosh, Harry G.	46th Lieut.	80	47	McIntosh, Harry G.	46th Lieut.	80	47
McIntosh, Harry G.	47th Lieut.	60	48	McIntosh, Harry G.	47th Lieut.	60	48
McIntosh, Harry G.	48th Lieut.	40	49	McIntosh, Harry G.	48th Lieut.	40	49
McIntosh, Harry G.	49th Lieut.	20	50	McIntosh, Harry G.	49th Lieut.	20	50
McIntosh, Harry G.	50th Lieut.	0	51	McIntosh, Harry G.	50th Lieut.	0	51

Two Varieties

[illegible]

One Victory

[illegible][illegible]

[illegible]

The Spain–Argentina Flight

Transatlantic Flight Successfully Completed

On Jan. 22, the *Durmitor* will airplane, No. 1105 Ultra, make a short fifteen minute flight over the Canary Islands to Guadalupe Bay preparatory for the hop to the Cape Verde Islands. Guadalupe Bay is on the east coast of Grand Canary Island, the principal member of the Canary group. Las Palmas is near the northern tip of the island.

Second Log of Phytic

At 8:30 a.m. on Jan. 30, the seaplane left Gardo Bay on the long flight to Porto Freixo in the Cape Verde Islands, which are 1,956 miles from the Canary Islands. The flight was made with perfect success, the engines, Napier line type, developing 450 hp., functioning well. Porto Freixo was reached the same day at 5:55 p. m. after a flight of 8 hr., 35 min. The weather was good throughout the flight.

The Longest Hay

On coming ashore at Porto Praya, the men were received by the Governor of the Cape Verde Islands and were given a most generous and hearty welcome. The town of Praya is a small town, but it is the center of the island. On the following day an incident was lost in concluding the plans in readiness for the continuation of the flight to the Brazilian coast. The take off for Pernambuco was planned for Saturday, July 30, and it was hoped that the flight could be made without an accident. Unfortunately, which occurred, proved to be serious. Much time and thought was spent in deciding upon an alternative plan from which to commence the long coast flight. The longest far in the whole undertaking.

The night was spent at Noronha and, at 1:05 p.m., on June 25, the No. 10 plane left for Pernambuco, a distance of 100 miles. The flight was without incident and, after a flight of 35 to 40 min. The time of arrival was 4:45 p.m. The reason for the late start from Noronha was due to the fact that, owing to the rough weather, it was necessary for the crew to remain ahead their place all night at Noronha.

A delay of a few days is inevitable at Pernambuco owing to a damaged propeller (caused by severe weather conditions) which made it necessary to remain at sea all night at Noronha. The propeller must be replaced. A new one was immediately dispatched.

After a tortuous flight of about 1500 hours, the plane landed over Fernando de Noronha and an attempt was planned owing to the supply of gasoline becoming low. Commander Franco circled the island several times, looking for a suitable area for an alighting and then decided to fix out the



The Spanish Fleet. Comdr. Don Juan Franco (right) and Capt. Don
de Alde

sea and slight breeze. This done, the airplane was towed onto Casapueblo Bay. Three men were on board the plane. These were, Commander Franco, together with Capt. Juan de Alda, chief pilot and Pablo Rada, mechanic. Lieutenant Duran had been left behind at Porto Praya in order to leave a greater disposable load for fuel. The arrival at Nauyasba was at 5.50 p.m. on the evening of Jan. 26.

The flight was spent at Novosela and, at 1.05 p.m., on Feb. 26, the No. 104 Ultra left for Pernambuco, a distance of 270 miles. Pernambuco was reached without incident after a flight of 3 hr. 50 min. The time of arrival was 4.45 p.m. The reason for the late start from Novosela was due to the fact that, owing to the rough weather, it was necessary for the fliers to remain aboard their plane all night at Novosela.

A delay of a few days is inevitable at Pernambuco owing to a damaged propeller (caused by severe weather conditions) which made it necessary to remain at sea all night at Noronha which must be replaced. A new one was immediately dispatched.

AIR TRANSPORTATION

Czechoslovakian Air Line Projects

Interest in commercial aviation in Cambodia has increased considerably during the past few months. With the signing of the *Léase* pact, the resumption of the Phnom Penh-Bangkok-Paris air line will be possible, and negotiations on the subject probably will be opened in the near future.

Prepar-Tments Service Flavored

Two proposals have been made to the Ministry of Public Works for the establishment of commercial air services between Prague and Tientsin, to be extended to Berlin as soon as a suitable point. The proposals covering this project have been made by (1) The Syndicate of Czechoslovakian Airlines Manufacturers, established for the purpose under the name of the Czechoslovak Air Strips Group Co, in which the participants are Bertold & Drost Co., Larrin & Klesner, J. Walter & Co, and the Avia airplane factory, all local firms interested in the manufacture of airplanes, and (2) a second group, the individual participants of which are not known. The latter group has been stipulated, in their proposal, that they will use airplanes of domestic manufacture and will employ personnel of Czechoslovakian origin.

The State Works are shortly to enlarge their works, in order to organize more thoroughly the departed new manufacturing airplanes. They also contemplate the construction of a modern hangar.

The Romanian Government has ordered, from Czechoslovakia, 75 airplanes of the Avia type. This machine was victorious at the international airplane contest in Italy, and it is believed that this move, announced by the Romanian Government to award the order to the Czechoslovakian manufacturers.

Amputation of *Chondrolophus* has grown very rapidly during recent years, and the attitude of the *Chondrolophus* people toward its development is extremely favorable. The airport of Prague (known as Praha in the native tongue) has developed to such importance that it is now one of the busiest airports in Europe, with five or six of the most important air routes passing through or originating there).

German Freight Air Transport

The foliage of *Gorse* is eaten here in the transportation of goods out of the province, it is thought by many, that any rain, good transport has, has been caused by the wind, not only from and to end of the country, but from across the borders. During November, according to statistics published by the Aero Lloyd, the following manifold goods—to mention only some of the kinds—were conveyed by air in their various destinations: books and papers, electric and chemical articles, automobile, motorcycle and pneumatic parts; clothing and jewelry of every description, flowers from the Riviera, and other goods, and, in addition, many thousands of lamps, process materials, and many kinds of live stock, including calves and other birds, and German sheep dogs.



The Prague airport, Chvalkovsky, one of Europe's best commercial air terminals. It is a government-owned field, available for civil flying and is, in dimension, 1800 ft. by 1000 yd. Among the air lines which pass through or connect from this airport are: London-Colgate, Praha-Comenius, Praha-Praha-Vratis, Praha-Holistei Airport, Praha-Bratislava, Praha-Bratislava.

What Pilots Think About Air Legislation

Pilots Continue to Express Fines on Legislation.

Experience Before Carrying Passengers

It is quite hard to say that unlicensed pilots have made great mistakes. I have seen who have been flying for eight to ten years who haven't broken. Experience is the best remedy for unsafe flying. I believe it would be a good thing if pilots were required to have at least forty hours in the air before they were allowed to carry passengers. I have had about 1,000 hours in the air and find that I learned much after my first hundred hours. A level one pilot can get a license in fifteen or twenty hours and prove to be competent but a safe flier. I don't think one out of ten students are trained by planes with out enough practice making us too tense to take off over town. I think flying is too new to have any regulations yet. I have been flying a few years lately, but have done about all that we have in the country except the moves or some of the late Army ships.

I don't think passenger carrying at a low price is very profitable. I carried about 3500 passengers last year, without any accidents.

R. W. ROBERTS,
Marshall, Mo.

The Experience of Nine Years

I can give you readers the result of my experience in nine years of commercial flying.

I believe that Senator Hingham is doing the necessary thing to bring commercial aviation to the front. I think the principles of his bill are beautiful, although some of the regulations pertaining to student pilots should be altered to allow time to secure actual commercial flying experience, by permitting them to do flying of a commercially safe nature, merely the carrying of freight or express cargo, but not allowing them to carry passengers until such a time as experience has proven their ability.

I believe that aviation will benefit by regulations governing the qualifications of pilots who are permitted to carry passengers. The owner of the plane is assured that they are safe with pilots of proven ability and competence, the owner they will take advantage of aviation. I firmly believe that a student aviator, who enters the public into paying for a mile in an airplane, which is not trustworthy, or which is not piloted by a man of proved ability, is who has not proved by test that he is capable of handling an airplane under adverse conditions, should be guilty of an act of manslaughter. In some cases, where fatal accidents occur, he would be guilty

of actual murder, notwithstanding, as we do, that the general public is ignorant of the hazards connected with the flying.

In no instance for anyone to say that flying is not hazardous even with the best of pilots. It is more numerous for one to say that a man is capable of competent flying because he has spent about two or three months and a couple of hundred dollars in some flying field.

There are exceptions, however, as to the ability of students. Nevertheless, it takes many hours of experience flying to honestly desire a student competent to carry the general public as passengers. Of course, if he has taken it up for a living, then he should be restricted to carrying the public and not just jumper the aviator who is in the business for a living. Aviation will not be personated commercially until the public is assured that all persons connected with the airplane offering flying services are credited, both as to each individual's ability and the work standards of the representative.

I am heart and soul for the advancement of commercial aviation, as the demand for passenger carrying and pay riders, even now, does not reveal the question of a fast-track flying field, for this purpose only. I feel, as managing an old most up-to-date field in Chicago, that students and instructors pay fairly well from day rides but through the week, even in such a great city as this, there is very seldom one real commercial trip taken. If well equipped fields are to be maintained, they must have work, on the week days, of a commercial nature. We won't get it until we have the business man's confidence and we won't get that until we have proof that our equipment and personnel are competent and capable. We, who are in the business, must realize the absolute maximum profit for an educational program that will, in most cases, put the general public in sympathy with commercial aviation and at the same time put the necessary confidence in the public which will and can only be awarded by commercial personnel.

Obsolete equipment is being used today at many of our flying fields throughout the country. Even the old time there are having themselves by selling aircraft which are unable to operate steadily and the public. I believe that individuals at the student taking up aviation are here who have worked hard to earn a few hundred dollars. They have to fly at some flying school in some case an irresponsible one—like about one hundred dollars, and are then told some old deplorable plane for a few hundred dollars and other good and bad security. They ride a few times, then, ES-40 with gas and oil, to some small town to make their fortune. They absolutely unexpected accidents that cannot possibly be expected. They get on an aircraft calibration by climbing, slipping and

falling all over the sky. The public is uneducated and aviation does it to worried pilots. A few types are taken by their senses. Some the water gets and the result is a crash which in many cases is fatal to someone. Then another series of events. It isn't the individual who should be considered, it is commercial aviation.

Just two weeks ago, I was visiting one of our southern flying fields. Naturally, over breakfast, I visited the field to see the passenger carrying. There were three or four new planes doing a good business. I saw also a student working on the last end of an old deplorable Avia that he had purchased recently, being rented by a couple of enthusiastic boy friends of his. He suggested my ride and came over to ask me if I would make a few changes with him, to make him feel better. I had just that kind of thing going on.

He, of course, 50th century. I showed him, "This kind thing for you to do far your own health and everybody else's, is to take a walk in your plane." A lot of about his business time came along and was asked to make a few landings. He finally answered that he would fly something with wings on it. The old hanging story was started and the whole plane rattled like an electric sewing machine. This happened at approximately 3:00 p.m. and at 3:45 p.m. I was in the adjoining hospital building those two from the northmen.

Now, the reason I refer to this incident is because the experienced flier who was doing the business that they had visited all week for, were getting their plane away, because the crowd had disappeared to in some dirty had ended them away with a single word. One of the oldest flier present walked over to me and said, "Thank, commercial aviation is two years further away now than it was two years ago," with which I entirely agreed.

We took students to fly, but we do not endorse them with the idea that they are here in two or three weeks' time and immediately carry passengers with a plane that we can sell them for about three or four hundred dollars. For the future benefit of commercial aviation, I discourage passenger carrying with all my students, until such time as they are subject enough to themselves to do the first one or two solo flights for a mile. They will find that, in just one year, they never alone before several months or sometimes years. I believe that it is every aviator's duty, to further the progress of commercial aviation, even though it temporarily prevents a certain income derived from students.

My experience has been that I suspect honestly give a student the necessary time and individual instruction that is essential in turning out a thoroughly trained student, less than \$200.00. The benefit of future commercial members, I don't want to turn out any other type. We are doing all we can to educate passengers to "know your plane" before they fly. If we can eliminate accidents we can advance commercial aviation.

We use land, use smaller airplanes for instruction and when I have a class of students on the line for instruction, I am never offered to express on them a thorough understanding of the importance of strict discipline. I do it!

can to share them the dangers of overlooking any one part of the plane. I don't do it I can't do it, I don't see any sense in just about as have anything relative to do with the operation or flying of any obsolete type of plane. I will wager that if my new students under instruction at present, some of them would fly a plane that they are not thoroughly trained on up-to-date. All planes must testing and this should be done by someone designated by the government. A student pilot should be equipped with a parachute and be paid by the owner for parachute testing and also paid to be told and furnish the owner with a record for future use. The same test should be required periodically of each plane used in the commercial transportation of passengers.

I am not a product and I do not want to produce any statistics, but it is my conviction that if aviation is regulated by a civilian commission, with direct managers to regulate and govern flying, pilots and aircraft, that the public will quickly learn the advantages, and commercial aviation will come to the front.

I believe it is the government's duty to protect the public from these hazards. I believe that the Army and the Navy should be prohibited from selling obsolete aircraft to civilians for commercial purposes. If the airplanes are any good, they should keep them themselves, otherwise, junk them.

I believe that all government flying fields and National Guard fields should be open, available to transport aircraft that are so regulated. When a civilian lands on one of these fields, he is in some cases the privilege of using the hangar, even though there are no signs of it in them. I am not concerned to have them closed, but I am thinking of making four or five small ones and one or two commercial offices devoted to keep around these places with nothing whatever to do, when they are being used by taxpayer's money. They could get around housing commercial pilots (as we try to make a living). I have talked to soldiers stationed at these places and asked them to let and they they get taking care of one or two Army planes that they arrive each week. If any of the civilian, among these personnel, show them they should be closed the use of the \$60.75 on a regular basis, every aviator should be denied the noncommercial activity because an ex-military system, as I understand it, took advantage of the opportunity on a southern field which needed in the whole prohibiting civilians using a government hangar, especially when there is none.

The air and in controlling will, the Ford line in Chicago has made a good start because they employ nothing but highly experienced pilots and are working hard to keep efficient and up-to-date equipment.

In witnessing some 800 students ride and in positive flight, I have failed to have one of them say that they were content that they were qualified. No profession can be learned in two or three weeks that requires any responsibility.

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Letters to an Embryo Pilot

By G. C. Colwell

My dear Sam:

Your mother and I were pleased to get your letter telling of your safe arrival in Garden City. And we are very pleased with the maturity of your instructor, Mr. Jones.

If you feel it is absolutely necessary that you should purchase civil pants and leather stockings like those worn by Jones, you may get them, though I thought I had blocked the last long stockings for you several years ago. You will find that your legs were hairy in long stockings quite as much as they do in shorts. And the socks are elastic.

However, I have been paying for long stockings for your mother for a good many years ago, so I suppose I can add you to the list again with only a slight addition. The more things it is that you should learn to fly with the maximum of effort, and if you feel you can get through in the air where in a real life that, or right about that. They may carry long stockings in the past, but I think it is better to have them, at least, I guess you'll have to stick in to the latter ready-to-wear, to get a pair.

It is too bad that you have not been favored with fine weather during your first week in Garden City, but we note that you have transferred your activities to Greenwich Village, where your mother supposes is a little country town nearby. I have thought it just as well that she should keep on thinking that. But that I would desire your mother for a minute, in anything. You know that, son. But if for the sake to think Greenwich Village is about like Straburgh, I think it would be better to keep on thinking that way. She was wondering if there were a good school there, and I said I guessed there was. You might find of mention that the service was not, or something like that, when you write. I told your mother I guess you'll pick up a lot of spiritual good in a little place like that.

You were kind of anxious in your letter when you mentioned that some of the boys were lit up down at the village. That

mother didn't quite get that, but I helped out by explaining that lately there were some people returned to the night-flying stage. I think I would go kind of eager if I were you, at my age, about writing to mother about anything. It's all right with me, you know. I would expect you a genuine love, at least. Kind of wishful, not of old times. Not that the old ones ever get up any. You know that, son. But I kind of get a better out of hearing about you looking up a bit, if you don't make a business of it, him, and if you spend too much on it.

Desires Phillips was over today, and said he hoped you wouldn't lose sight of spiritual matters. I told him I guessed you kept them in mind all right. I was therefore that right-flying. Your Aunt Sue is visiting us, and I have there's a note of mention once to mother. These things are sent to you as, in the good Book says. That's all for now, from

Your affectionate
Dad

Making Satisfactory Progress

My dear Ben:

Glad to learn from your last letter that you are making such progress with your flying and so forth. We don't write follow your references to "a couple of well-bred boys, one never (thanks)!" For the benefit of your mother, I would suggest that you explain these purely technical terms.

I've told her I haven't the least idea what you mean, and I'm going to stick to that, for, too. The reached a time of life when you are not in the house in which I am at, rather than to look it up by explaining things I don't understand, or am not supposed to know. Not that I do, either. You know well.

Regarding your son, as your father, but mainly as an old boy who has been about a bit, (which you need not refer to in your next letter) I would suggest that a study of birds, either well or less, is not necessarily helpful in acquiring

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a knowledge of aviation. If you will contact your mother with what Mr. Jones may tell you about flying without seeing that first-hand information from the birds themselves, you will receive the same slight worry from my mind.

Your mother says to be sure to write your mother and your mother when you get out. And I'll add privately that it wouldn't be a bad idea to meet the mother once in the house when you are done to write home to me. I just sent letter, for instance, you might seriously consider "what would be the Caruso Union ever," or something like that. I look of and that you were never technical language about the plane. Not that I'd understand any reason for a minute, you understand, but if you think they're worth, you don't talking to yourself your mother. A not much to be as good as a work to a son of mine, though I will say that I've done some quite as bright as I was when I was coming, about some things.

Incidentally, I think you might pick up a knowledge of flying a slight quiver of you just were attention to the plane, and something like to the danger. Not that I'd have you make a habit of yourself, you understand. But I think it would be as well if you stick to the Jones and left the Jones alone. I guess your procedure is about standard at your age, come to think back a bit, again, though you wouldn't realize that in your next letter, either.

Things are about the same about the old plane. Your mother says it's sort of tough on me to have to do all the chores alone, now you're away. But, as I told her the morning, I don't want to make of work any. I guess you'll see what I mean, if you think that red line.

The old motor's been off for four days, and your Aunt Aggie's not very happy either. With it was spring, so I would put her in good luck for me. I mean. But come to think of it, I don't love to try and much of your Aunt Aggie was a long too—though you wouldn't realize that when

you write. We're not getting close a year of making a day from the old Jersey. What about that up. So is
Your affectionate
Dad

To Carry Letters Across the Pole

My dear Sir: Mr. William, the Arctic explorer who is located by the American Geographical Society in the light to the North polar region, at Alaska, has received an offer from A. C. Howland, the Red Cross Shipping division, to carry 200 letters at \$10.00 per letter.

An amount of letters to be sent, these letters will be only 1 x 1 1/2 inches and made of the lightest weight paper. Captain William has accepted the offer and 200 letters will be sent.

The traffic in these carrier letters carried by plane is increasing rapidly and now it is an important business. The announcement of a new flight through either from different points, in Europe, indicates the size, scope, and cost of the line of about \$10,000 of business monthly.

Air Mail Makes Record

Outstanding a speed of more than 134 m.p.h., Air Mail Pilot Henry J. Hunt and Henry A. Chandler established a record for night flying when they covered the distance from Chicago to New York—730 miles over the night of Jan. 29-30 in an actual flying time of 5 hr. 34 min. The schedule time for this route is 6 hr. 45 min. The flight was made in a Curtiss biplane, the two pilots in 7 hr. 38 min.

Pilot Hunt left Maywood Field, Chicago at 7:41 p. m., crossed time and stopped at 11:30 at Dayton, Ohio, on his way to Cleveland, where Pilot Chandler took the plane and completed the journey to New York, reaching Mayfield Field at 2:45 a. m. on Jan. 30. The flight covered 304 ft. of road surface.

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Packard 2A-1500 Engine on Test

The Navy Department has commenced the highly satisfactory completion of an endurance test of the Packard 2A-1500 engine at the plant of the Packard Motor Car Co. in Detroit. This engine, originally designed as a 450 hp. engine at 1500 rpm., was tested for a total of 56 hr. at various throttle and developed 400 hp. at 2000 rpm. The test was completed in four periods, one of which covered 56 hr. non-stop at full power. During the 56 hr. test, spark plugs were cleaned twice and hot tube adjustments were made.

At the end of this test the engine was in excellent condition and capable of continuing the test.

This performance is an excellent measure of the progress in aircraft engines since the war. The new Packard engine has a gross displacement of 1500 cu. in., against 1400 cu. in. for the Liberty. On this displacement, it develops half as much power again as the Liberty, when subjected to tests that were, in the past, reserved for Liberty engines until further running. With this increased power, the engine weighs 150 lb. less than the Liberty. In other words, it develops 300 additional horsepower on 150 lb. less weight. This is one of the most notable engine developments of modern times.

Lower Weight per Horsepower

The completion of this test marks the culmination of an active period of development which commenced in Dec., 1922, with the purchase of three experimental engines of 1500 cu. in. capacity each. During the development, it was found possible to increase the capacity to 1560 cu. in. on about the same engine weight, and this was done. Upon the satisfactory completion of the experimental work, the Navy Department entered into a contract with Packard Motor Car Co. for ten additional engines of this type. The Packard engine can be used driving a propeller directly or through reduction gearing. It can also be run successfully in the inverted position. This latter fact makes it possible to greatly reduce the volume of airplanes and to im-

prove the aerodynamic qualities. The two new engines, therefore, were manufactured as three forward-direct driven, gear driven, and inverted.

One of the direct-drive engines, when installed in an airplane, showed an increase in speed of 12 m.p.h. over other models, together with greatly improved performance all around. The inverted engines have been installed in Landing Amphibians and are now being tested at the Naval Air Station, Annapolis, where they have shown greatly improved performance over the old Liberty installation such as was used in the Arctic flight planes.

Used as the PN-9s

The ground engines were installed in the two PN-9's for the West Coast-Eurasian flight. The first of these holds the world seaplane endurance record, and successfully carried Commander Rodgers and his companions toward the Hawaiian Islands until shortage of gasoline enforced a descent to the water.

As a result of flight experience with the engine, it was decided to make a number of minor improvements and these were incorporated in the engine which has completed the successful test. As a result of the changes, the engine is one of the smoothest running, most dependable high powered, light weight engines in existence today. The Navy Department has now decided to use this engine in a squadron of fighters being ordered for the airplane carriers, Lexington and Enterprise.

A contract has been placed for 24 additional engines of this model for the Epitome, for two PN-10's (later developments of the PN-9), and for two new Landing Amphibians. Nine of these engines will be required to utilize the 600 hp. developed in the test and the real object of the test was to obtain an engine capable of 50 hp. full throttle endurance at 600 hp. in order to greatly increase the life of the engine at about 300 hp.

This new Packard engine is equipped with Bendix starter system.



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The three Travel Air Planes (see C-2S Production Model), an OX-5 and a C-1 Model, entered in the Ford Reliability Tour at Indianapolis with perfect scores, although the C-1 Travel Air entered as overdue of 2015. Travel Air Planes may also be obtained with the Wright Wheland (H) 200 hp. engine.

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AIRPORTS AND AIRWAYS

Pittsburgh, Pa.

By Roy A. Tabor

The Aero Club of Pittsburgh is to hold its Fourth Annual Aviation Ball on Monday evening, Feb. 22, at the William Penn Hotel. This ball is one of the local outstanding social events of the winter and, based on past successes in attendance and in popularity of program, this year's effort should surpass all others as a result of the work being performed by the following committee members and their associates:

General Ball Committee—Thomas Ryan, Chm.; H. Frank Schaefer, V. Pres.; Arthur, Christopher J. Evans, William L. Reed, H. Schaefer, Executive Committee—Richard B. Perry, Chm.; Raymond M. Miller, Charles H. Lester, Harry E. Warriner, R. W. Schaefer, Ball Committee—Robert E. Baker, Chm.; William J. Schaefer, Jr., A. B. McIntyre, Robert A. Lambie.

Patrons and Gift Committee—Thomas M. Jones, Chm.; Charles J. McCarthy, Gen. William Hays; J. Joseph Miller, Eugene D. Dwyer, Jr., Chm.; A. W. Wright.

Publicity Committee—Ray A. Tabor, Chm.; Theodore Tabor, Lewis D. Lawrence, George Kilduff, W. Burton Smith.

Ticket Committee—John F. Perry, Chm.; Joseph M. Baker, John W. Schaefer, Ed. Henry C. Fox.

Refreshment and Social Committee—H. Frank Schaefer, Chm.; William W. Smith, William E. Clark, Lawrence A. Wilson, John E. Perry.

As in preceding years, it is hoped that many sets of downy guests will make their appearance and they will insure a warm welcome from the Club members.

Very recently, the Aero Club had the pleasure of entertaining, at a weekly luncheon, 14 Bryan J. Gurnett, U.S.N. of "Everette" FV-6 type, who claims Pittsburgh as his hometown. In a very interesting and entertaining talk, he told

of his experience as a member of the crew of the FV-6 on that eventful flight and brought out the fact that, although press dispatches had carried a report that the crew of the plane had been "killed from a watery grave," by the submarine that crashed it, they were at the time of the crash within 20 miles of land and sinking at a good speed.

Through the recent action of the Postmaster General in advertising for bids on a proposed Pittsburgh-Cleveland Air Mail route, it would seem that Pittsburgh may eventually become connected with the air mail system. It is doubtful, though if any such contract will make a bid with the expectation of deriving anything but a financial loss, due to fast train service competition, which, in the short haul, can render easily as fast a service as can the plane, in making connections at Cleveland, with the transcontinental air mail.

Spokane, Wash.

By L. H. Parsons

Charles T. Wrightson, business manager of the Varney Airplane company and Leon D. Coddleback, chief pilot of the same concern, have been in Pocatello, Wash., looking over landing facilities which they will need when the company begins its Pocatello-Elgin, Nev. mail carrying contract. Planes of the Swallow type are being readied and fields chosen in order that the mail work can be begun on April 1 under contract with the government. Both men were guests recently of the Pocatello Chamber of Commerce and made short talks



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Mr. Wrightson and passengers will not be carried at the start but that an express service probably will be instituted before the end of the year.

Officers of the 218th Observation Squadron, Washington National Guard, showed 12 units of official Air Express returns here to raise money for improvements at the field. The shipment of planes from the store of the Wrights to the present was without an hitch.

Another Christmas, Grand photographer, has taken some of better photos of interesting planes at and near Spaulding. Spaulding's daily planes have used many of his pictures. Grand pilots have been making flights each Sunday during the winter. Several of the more comfortable than here also been getting in some time during the week. Louis W. W. Walden, who took training at Kelly Field, has returned to the Guard and has taken to place with the other pilots. He has been away from the city for four months.

Despite a mild winter and good flying conditions, commercial aviation here found little to do. Frank Kautner, commercial pilot, is discussing plans for a passenger service between the mid-West and the West coast, if funds are forthcoming.

Los Angeles, Calif.

By Pat McDougal

Los Angeles is stepping forward as a center of commercial aviation in the United States. At Glendale, Mr. W. W. Wrightson is building a steel tube fuselage job with an OX5 engine. Mr. Waterhouse has several orders for spring delivery. The Rogers Airport has ordered two of the Waterhouse planes. John Waterhouse has managed well to ready to take on. It has a steel tube fuselage, carries two passengers and is powered with a 55 hp. Anson engine.

Doris of Dyer Airport, Mr. Cleveland plans to build two Junkers planes. One will be a two-passenger type, fitted with three Wright Whirlwind engines. The other will carry six passengers and will be fitted with a Duesenberg B.M.W. engine. Mr. Cleveland already has one Junkers plane. This plane was assembled in a three landing due to failure of the air pressure in the gasoline system, but will shortly be ready for operation again.

Radio Airport recently changed gasoline companies and, by equal arrangement, now has a considerable amount of new planes on the planes. Ernie Langhans in president of the airport and Mr. Eyer is the manager. They own and operate Cessna 373 and Howard types of planes.

Burdett Airport reports a very satisfactory year. In 1935 nearly 2,000 passengers were carried, and 24 students issued. They now have 28 students enrolled. There are 16 planes, including Burdett Airport, including a Travel Air, a E. M. Swift, a Blue-John, a J.M.P.11, all in good flying condition, and several other ships in storage.

The Black Cat Club makes its headquarters at the Burdett Airport. This club has 13 members. The club's purpose is to become a member on a parachute jump, a "big change" and the qualifications of being a pilot. Kenneth Dewey was the club's member.

Burdett Airport employs a wing builder, a designer, two mechanics, a welder, three pilots and a flock of wing makers, ground hands and several models.

New York/Florida Flights

Chief Webster, chief pilot for the Curtiss Metropolitan Airplane Co., claims to come nearer than anyone to being an actual member between New York and Florida. The Curtiss Metropolitan company operates flying boats from Port Washington, L. I., to the coast and from Palm Beach, Fla., to the water. Webster has been ferrying the company's planes from New York to Florida since 1926. In 1932, at a Longport Airfield, he flew from Palm Beach to New York in 11 hr. 35 min., a record which still stands. Last spring he flew two Luscombe planes up from Florida and this fall he has flown the company's two Landing planes and a Seagull down from Port Washington. The third trip this fall was made rather late in the season with ice in the harbor

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COSTS are important. Financing all of the new parts to such other in use and laid steadily as the most costly part of building airplanes. We do it with such white to make many sections in one piece as we do for the best of wings and of metal fuselages for the Anson and had some of flying boats in one-piece form. Also, quite from a single piece, thus one of our air craft, stronger and lighter than it is made of many pieces.

COMPARISON: our wing spans for a recent Navy plane which are assembled by a single job or part over 5 1/2 ft. in each span, with them assembled by others and having 20 ft. in the same length. In a complete hull 22 ft. 6 in. long, 45 in. wide and 30 in. high our design require but 2,275 parts, but as other designers, in comparison with the 25,000 or more fastenings of other designs.

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as far south as Carolina. One of the planes dropped the two engines during a heavy snow at Hartford, N.Y., and damaged a wing, so the flight was not, however, successful. The Curtiss Metropolitan company said a Seagull this fall and the company's other pilot, Pete Tabor, remained with the purchase. Pete Tabor, manager of the company, but set up the company's last new Seagull, which occurred. For the delay to the last trip, Smith.

Paul Tabor admits that Rogers Airline has their headquarters in New York and has been in business here. Paul Tabor with George Bennett to pilot. Ray Appleton is also seen with a N.Y. boat with Glenn engine.

Baron Van Bredaakook recently flew to Palm Beach with the General Mac from South America. They took a trip to the Bahamas, landed from here and placed on their return to take to Miami. This trip was in the nature of a propaganda trip, butting Rogers and MacArthur's names and basis, in one of the New York office. It is mentioned also that the trip from South America was in the nature of a demonstration trip to show the feasibility of a mail service from South American points to Key West or Miami.

There are several H.E. boats in Miami also during a fair commercial business and the aerial survey and photographic companies are working some very good contracts from the various and estate developments. The Navy's aerial armada is due to pass through here on its usual route to Guantanamo, Cuba, for winter maneuvers.

Charles Culter has a typewriter mill at Daytona and expects soon to be in Palm Beach and Miami, advertising for the Florida advertising agency. One Hensley, who has had a license in this neighborhood since 1926, now has a plane and the agency for sale, with a field at Sebring.

The Inter-Florida Airways are expanding far south and express service between Atlanta, Jacksonville, Tampa, Palm Beach, Miami, etc. They have several new Curtiss models, two Fokkers and two Waco. The aerial survey is that very complete and capable pilot Ralph Dwyer of West Palm Beach.

To Command Polar Flight

Announcement from Oslo, Sweden states that Egon Schibye will be commander of the midday Spaulding, new building in Italy for the Amundsen-Elsworth expedition from Spaulding to the North Pole, Arctic, Greenland for the expedition.

The preliminary itinerary selected includes Russia, Harbin, Persia, Pakistan, Australia, Singapore, Brazil, Rio de Janeiro, and Kingston, Jamaica. If the aerial flight is successful in carrying the plane to the North Pole, the plane will be sent to the coast of Norway, and then to the coast of Sweden to Singapore and Singapore.

This means far along the expedition route is to avoid a flight across the North Atlantic to the temperate water months.

Pence Prepares for Air Mail Line

The city of Port, Wash., has provided an air mail landing field and a hangar will be constructed so it by the time service starts in April, according to Charles E. Wrightson, vice superintendent for W. T. Vetter, air mail contractor on the Elko-Hill-House route. At Elko, W. T. Vetter will use the same mail airport, so it is only at Boise, where he desires to make his headquarters, that facilities have not yet been provided for taking care of the air mail ships.

Pence had two aims to offer to airports in Mr. Wrightson when he opened them, to aid, both of which were also a failure. The selected one of these for use by the air mail and was assumed that stage would be taken immediately toward the Elko-Hill-House route. It had been planned that the air mail people are enthusiastically look to the air mail and proposed both money and labor to help Mr. Vetter in making the route a success.

United States Air Forces

The Foreign Service Situation

Assignments, especially first lieutenants, who have had no foreign service, will soon be due for such service. In this connection the following table is of interest.

	Assigned	First Lieut.	Second Lieut.	Third Lieut.	Fourth Lieut.
Aviation	54	120	120	120	120
Infantry	44	120	120	120	120
Artillery	22	120	120	120	120
Cavalry	22	120	120	120	120

From the above it can readily be seen that even if it were not necessary to consider such questions as availability (student at schools, etc.) or qualifications (radio, photo, etc.), some of the officers sent to Havana and Panama must be from among those who gave their entire air service to their first choice. Every possible consideration is given to the desires expressed by the officers as to their preference of station and it is revealed that it is impossible to give everybody their first choice.

The same thing applies in many cases to officers returning from foreign service. At least three-fourths of those who give no preference state that they desire assignment to the Pacific Coast. On account of the small percentage of Air Service officers stationed in that area it is apparent that only about one out of ten can be granted such request.

Ansonia Naval Planes Make Weather Observations

The weather observations by airplanes which were begun by the Naval Air Station at Ansonia last June have been of such value that it is planned to increase the number and regularity of these observations. Hereafter, observations have been made only on work days. In the near future, Lieut. George H. O. Clark, commanding officer of the Naval Air Station at Ansonia, plans to assign daily observation flights on Saturdays and Sundays. When this plan is put into effect, the data from these observations, which are of great importance to the progression of weather forecasts, will be available to the Washington Forecasting every morning except when the weather is so bad that flight is not advised.

About 7:30 a.m. each morning, a specially equipped plane will take with a pilot and an unobscured observer who will make special note of air conditions such as clouds, which are not revealed by the anemograph. Quiet flights are sometimes found in these upper strata. Sometimes when the air on the ground is apparently warm, a cool ascending current is found only a few thousand feet high while at other times when temperatures are rising they drop to keep warm, a balmy summer breeze is encountered only a short distance above the earth. Instruments as our weather is largely determined by the temperatures of the air above the earth and by the moisture which the great mass of upper air contains, it is easy to see that observations of temperatures and humidities above the earth are of great importance to the weather forecasts.

Upon landing, after completion of the flights, the observations will be quickly worked up and the comparison telegraphed to the weather bureau and to the aerological section of the Navy Bureau of Aeronautics.

Weather forecasters are very enthusiastic about these upper air observations. The meteorologists of the weather bureau have repeatedly expressed the desire for more such observations. The collection of observations by airplane is a delicate and laborious task. Meteorologists are taking great heed to the day when they will receive upper air weather reports from all important weather fields throughout the country and will thereby be enabled to prepare more better weather forecasts than is possible at present.

Since the commencement of the work in June, 2025, 213

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Eight have been made at Ansonia Naval Air Station, with a total of 60 by the six. The highest altitude reached by the pilots in taking the weather observations was 15,000 ft. and the lowest temperatures encountered was 1 deg. Fahr. Several arrangements have been made to make extremely high altitudes during the summer season in order to still further assist the weather bureau in predicting the occurrence and magnitude of hurricanes.

It will take about a year's steady observation and checking with other observations that the weather bureau expects to get complete data on the relation of the atmosphere's effect on weather at higher altitudes and thus which the Weather Bureau has been taking in the past at the surface.

Flying Officers to Command Aircraft Carriers

It was also under way for the selection of flying officers to command the aircraft carriers, following suit a recommendation of the Lempert Committee. It is now understood that three of the candidates may be selected by the Navy for flying instructions. Among those who may be sent are Capt. George Stavis, Capt. E. E. Turrell, Capt. Theodore Conner, Capt. Joseph M. Jones and Capt. A. W. Marshall.

Army Air Order

Capt. Ivan B. Smith, A.S., office Chief of A.S. to Brooks Field, Calif.

First Lieut. Earl H. Tustin, A.S., Platoon Chief, Brooks Field, to Kelly Field.

First Lieut. Burton F. Lewis, A.S., McCook Field, to New York City, Lieutenant Lewis to sail on transport March 18 for Cleveland.

First Lieut. Henry F. Reissner, A.S., Langley Field, to New York City, Lieutenant Reissner to sail May 13 for Grand Mesa.

Major Henry J. Miller, A.S., Office Chief, Md. Det., Washington, to New York City, Major Miller to sail March 22, via Ocean transportation, for Houston Dept.

Capt. Henry Fauske, A.S., Wright Field, to New York City, Captain Fauske to sail March 12, via Ocean transportation, for the Houston Dept.

First Lieut. George W. Fink, Jr., A.S., McCook Field, to New York City, Lieutenant Fink to sail March 12, via Ocean transportation, for the Houston Dept.

First Lieut. Lee Q. Wason, A.S., Kelly Field, to San Francisco, Lieutenant Wason to sail May 15, on transport, for the Houston Dept.

First Lieut. Charles D. McAllister, A.S., Selfridge Field, to New York City, Lieutenant McAllister to sail April 22, via Ocean transportation, for the Houston Dept.

Capt. John W. Egan, A.S., City Field, to San Francisco, Lieutenant Egan to sail May 12, on transport, for the Houston Dept.

Following officers assigned to duty at station indicated, upon completion of tour of foreign service: First Lieut. Ray A. Dean, A.S., Fairfield, Greenhouse Ordnance, A.S., Langley Field, Lieut. C. E. Eddins, A.S., Langley Field, Arthur J. Boush, A.S., Campa Field, William C. Goldschmidt, A.S., Kelly Field, Arthur G. Hamilton, A.S., Kelly Field, Alfred E. Jewett, A.S., Marshall Field.

Capt. Edward C. Shook, A.S., Langley Field, detailed as instructor of A.S. at Camp, Baltimore.

Spec. Order 286, relieving Capt. William F. Volosh, A.S., from assignment McCook Field, and ordering him to proceed to New York City, for transportation to Philadelphia, Pa., aboard.

First Lieut. Kenneth B. Wolfe, A.S., Brooks Field, to San Francisco, Lieutenant Wolfe to sail on transport April 3 for Philadelphia.

First Lieut. Arthur B. Hoffer, A.S., Kelly Field, to San Francisco, Lieutenant Hoffer to sail April 3 for Philadelphia.

Sergeant Ross Cole, A.S., Mitchell Field, transferred in grade of Sergeant to Det. Co. 1st and detailed to duty with Co. H. Det. Co. 1st, Hartford.

Following officers A.S. relieved from assignment and duty sent field and will proceed to Brooks Field: Capt. Edward F. Witzman, First Lieut. Joseph F. Bailey and First Lieut. Lawrence A. Larson.

Capt. Oliver F. Kolok, A.S., Selfridge Field, to Office Chief

A.S., Washington.

First Lieut. James M. Gillingham, Col. Dept., transferred to A.S.

Staff Sergeant Arthur Jolly, A.S., Cumberland Field, upon completion of temporary duty, to McGuire Field.

Sergeant Marvin J. Mink, A.S., Camp Nichols, P.I., transferred to grade of pilot to the Quartermaster Corps, Ferry Road, Phila.

First Lieut. C. Ward, A.S., Suffolk Field, in Washington, in duty with A.S.

First Lieut. Harry A. McIlwain, A.S., Office Chief A.S., Washington, to San Antonio.

Spec. Order 134, relieving Capt. George S. Warren, A.S., from duty South Field, and ordering him to proceed to New York City for transportation to Panama, revised.

Transfer of Sec. Lieut. Walter W. Stoley, A.S., to Corps of Engineers, announced. Lieutenant Stoley is relieved from duty with Sec. Div., Fort Stan. Houston and will report to Com. Gen. of that Div. for assignment with Corps of Engineers.

Transfer of Sec. Lieut. George Wellington Mendenhall, A.S., to 1st, announced. Lieutenant Mendenhall is relieved from duty with Sec. Div., Fort Stan. Houston and will report to Com. Gen. of that Div. for assignment with the 1st.

Navy Air Orders

Capt. Randolph S. Moore det. Nav. Ensign, Board, Navy Dept., to New Air Sta., Pensacola.

Lieut. Claude Martin Giffin det. Aircraft Sqdn., Battle Fl., to U.S.S. Raven.

Leut. Winifred S. Cunningham det. Obs. Plane Sqdn. 3, Aircraft Sqdn., Seg. Fl., to U.S.S. Milwaukee.

Leut. Robert H. Gifford det. Obs. Plane Sqdn. 3, Aircraft Sqdn., Seg. Fl., to U.S.S. Raleigh.

Leut. John P. Heath det. Obs. Plane Sqdn. 3, Aircraft Sqdn., Seg. Fl., to U.S.S. Cincinnati.

Ensign Albert E. Lamborn det. U.S.S. Raven, to temporary duty New Air Sta., Pensacola.

Pay Clerk Albert H. Kishler det. Nav. Air Sta., San Diego, to Austin Station.

Sergeant Herbert E. Bullinger det. U.S.S. California to State. New Air Sta., Pensacola.

Ensign Dale Harris det. U.S.S. Hopkins, to meet Nav. Air Sta., Pensacola.

Ensign Frederick C. Hartman det. U.S.S. Oklahoma, to meet Nav. Air Sta., Pensacola.

Ensign John M. Sweeney det. U.S.S. Corry, to meet Nav. Air Sta., Pensacola.

Leut. Claude Langston H. Brown det. U.S.S. Kanawha, to meet Nav. Air Sta., Pensacola.

Leut. (jg) John M. Ewins det. Obs. Plane Sqdn. 3, Seg. Fl., to U.S.S. Memphis.

Leut. (jg) John L. Pratt det. Obs. Plane Sqdn. 3, Aircraft Sqdn., Seg. Fl., to U.S.S. Detroit.

Leut. Paul Carter to temporary duty New Air Sta., Pensacola, orders Dec. 18 revoked.

Ensign Ben H. Wyeth det. Nav. Air Sta., San Diego, to Battle Fl.

Ensign Charles W. Ellis (CMC) det. Nav. Air Sta., Pensacola, to U.S.S. Oklahoma.

Pay Clerk Paul Robinson det. Navy Yard, Mare Island, to New Air Sta., Pensacola.

Leut. (jg) William H. Remondet det. Aircraft Sqdn., Seg. Fl., to U.S.S. Wyoming.

Ensign Paul Gray det. U.S.S. McDermott to temporary duty New Air Sta., Pensacola.

Leut. Paul C. Dancy det. Obs. Plane Sqdn. 3, Aircraft Sqdn., Seg. Fl., to U.S.S. Meriboth.

Capt. Hugh M. T. Pearce (CMC) det. Navy Yard, Portsmouth, to New Air Sta., Pensacola.

Pay Clerk Joseph F. Blaine det. Rec. Ship, San Francisco, to New Air Sta., San Diego.

Marine Corps Air Orders

Sec. Lieut. C. L. Marshall det. MCR, NOR, San Diego, to N.A.S., San Diego.

Sec. Lieut. L. K. Riles det. MCR, NOR, San Diego, to N.A.S., San Diego.

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PUBLISHER'S NEWS LETTER

In support of the contention of AVIATION that aerial service is financially successful in this country, it is interesting to learn of the operations of E. A. Johnson of Dayton. He has a flying field, a hangar and a shop. His aerial service is typical of other local line operators. In five years he has earned 28,244 passengers. There have been no accidents and no one has been injured. There were 602,876 miles flown in the 20,072 flights, of which 1,160 were cross-country trips. In order to maintain an interest in flying among young people, Mr. Johnson introduced the "rent a plane" flying. The heaviest passenger weighed 308 pounds while the lightest was a child weighing only 21 pounds. A whole family was carried for \$3.69. Mr. Johnson's operations show how aerial service when managed by competent air people can be made profitable.

When so much is heard on all sides, and particularly in newspapers, of the great losses made in Europe with aerial utilization, it is always pleasing to be able to record the definite gains of the success of American airplanes. The net of the success of commercial aviation whether air transport or aerial service in the result of a very simple calculation. Aerialist that make money will be the backbone of commercial aviation. If the use to which an airplane is put can not be made profitable it will not become a part of commercial aviation. This is the largest question before aviation today: What uses of aircraft can be developed and made profitable? By keeping this very simple question in mind when considering the future of commercial aviation the whole problem becomes greatly simplified.

This year will bring the usual test of air transport in this country. The best experience and ability, backed by ample capital will direct the efforts of the air transport companies. The roads have been chosen after a full investigation of traffic possibilities. The concentration of all the routes along the right of way, if it may be so termed, has been whole heartedly and complete. Never was there such a good opportunity for success from a financial standpoint. If even a demonstration can be made that airplanes can operate regularly in this country and receive a fair share of traffic, the year 1935 will stand in the history of aviation as the starting point of the new era for which so many have waited with patience and courage.

When comparing American air transport with European air lines, the statement is often made that the absence of frontiers will be an advantage. Here, flying abroad does not support this view. In Europe, it gives a great advantage to air transport agencies as air travelers are shown exceptional courtesy and do not have to undergo the petty annoyances of customs inspection at the borders of countries. It is a distinct advantage that is becoming recognized.

Here, in the absence of Federal regulation, state laws may create difficulties that even a Federal law may not be able to overcome. Some states may not be willing to have their air used for air transport if the service is not of benefit to its own people. Take a route from Chicago to Washington as an example. A stop in Indiana or in West Virginia may not be advantageous. These states may object to the air of their air to give adjoining states and there often an advantage. This is one of the many problems that may have to be handled with extreme care. The second of the railroads in establishing through train lines in the early days is filled with similar difficulties. It has been assumed that Federal regulation will solve most of these problems. But when the state regulations of state rights come into play, air transport may find it one of its real obstacles.

Another point that has received little or no attention is the disadvantages that an air terminal city may come under. Taking the same Chicago-Washington air route. If it is flown by day, the loadings at the airplanes would have to be made on the day before. In the case of the Eastern flight, goods from Detroit, Minneapolis, St. Louis and other cities a night's journey away from Chicago by train would have the same advantage as those sent from Chicago. In other words the merchants of these other cities would be placed in a similar position as far as service is concerned with those of the city from which the flight starts. If this line of thought is applied to other routes it is easy to determine the extent where the shipment at the terminal cities will not receive as great an advantage as those in cities within the radius of a night's train journey. Of course, night flying will change this situation immediately but will this line of thinking possibly stay will be given thought. It enlarges the traffic possibilities of the air transport companies greatly and if advantage is taken at proper points it may prove the most intense producing source of air traffic. Air transportation standing alone may have great limitations but when it is utilized to the fullest extent in connection with other transportation agencies, it may become a great and profitable national service I.D.G.

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